## Figure 1A

No.	Kinase-Subclass	Family	Sub	Protein	αD sequence
1	Serine/Threonine	RAF		c-Raf	TQWCEGSSLYKHLHVQETK F
2	Serine/Threonine	RAF		Araf	TQWCEGSSLYHHLHVADTR F
3	Serine/Threonine	RAF		Braf	TQWCEGSSLYHHLHIIETKF
4	Serine/Threonine	CAPK		cAPKa	MEYVPGGEMFSHLRRIGRF
4	Serine/Threonine	CAPK		cAPKb	MEYVPGGEMFSHLRRIGRF
5	Serine/Threonine	CAPK		cAPKg	MEYVPGGEMFSRLQRVGRF
6	Serine/Threonine	PKC		PKCa	MEYVNGGDLMYHIQQVGK F
7	Serine/Threonine	PKC		PKCb	MEYVNGGDLMYHIQQVGR F
8	Serine/Threonine	PKC		PKCg	MEYVTGGDLMYHIQQLGKF
9	Serine/Threonine	PKC		PKCd	MEFLNGGDLMFHIQDKGRF
10	Serine/Threonine	PKC		PKCe	MEYVNGGDLMFQIQRSRKF
11	Serine/Threonine	PKC		PKCet	MEFVNGGDLMFHIQKSRRF
12	Serine/Threonine	PKC		PKCth	MEYLNGGDLMYHIQSCHKF

# Figure 1B

13	Serine/Threonine	Akt/PKB	Alrt1/Page	MEYANGGELFFHLSRERVF
13	Serme/Tireonnie	ARUFED	AKII/Raca	METANGGELFFHLSRERVF
13	Serine/Threonine	Akt/PKB	Akt2/Racb	MEYANGGELFFHLSRERVF
14	Serine/Threonine	GSK3	GSK3a	LEYVPETVYRVARHFTKAK LII
15	Serine/Threonine	GSK3	GSK3b	LDYVPETVYRVARHYSRAK QTL
16	Serine/Threonine	CK II	CK IIa	FEHVNNTDFKQLYQTL
1	Serine/Threonine	CK II	CK IIa'	FEYINNTDFKQLYQIL
18	Serine/Threonine	bARK1,2	bARK1	LDLMNGGDLHYHLSQHGV F
18	Serine/Threonine	bARK1,2	bARK2	LDLMNGGDLHYHLSQHGV F
19	Serine/Threonine	GRK1	GRK1	MTIMNGGDIRYHIYNVDED NPGF
20	Serine/Threonine	GRK4	GRK4	LTIMNGGDLKFHIYNLGNPG F
21	Serine/Threonine	GRK5	GRK5	LTIMNGGDLKFHIYNMGNP GF
22	Serine/Threonine	GRK6	GRK6	LTLMNGGDLKFHIYHMGQA GF

A CASE AND THE LAST AS

# Figure 1C

Serine/Threonine	CaMK	CaMK I	MQLVSGGELFDRIVEKGGY
Serine/Threonine	CaMK	CaMK IIa	FDLVTGGELFEDIVAREYY
Serine/Threonine	CaMK	CaMK IIb	FDLVTGGELFEDIVAREYY
Serine/Threonine	CaMK	CaMK IIg	FDLVTGGELFEDIVAREYY
Serine/Threonine	CaMK	CaMK IId	FDLVTGGELFEDIVAREYY
Serine/Threonine	POLO	Plk	LELCRRSLLELHKRRKAL
Serine/Threonine	POLO	Plx1	LELCRRSLLELHKRKAV
Serine/Threonine	POLO	polo	LELCKKRSMMELHKRRKSI
Serine/Threonine	POLO	SNK	LEYCSRRSMAHILKARKVL
Serine/Threonine	POLO	CDC5	LEICPNGSLMELLKRRKVL
Serine/Threonine	POLO	Sak	LEMCHNGEMNRYLKNRVK PF
Serine/Threonine	POLO	Prk	LELCSRKSLAHIWKARHTL
	Serine/Threonine  Serine/Threonine  Serine/Threonine  Serine/Threonine  Serine/Threonine  Serine/Threonine  Serine/Threonine  Serine/Threonine	Serine/Threonine CaMK  Serine/Threonine CaMK  Serine/Threonine CaMK  Serine/Threonine CaMK  Serine/Threonine POLO  Serine/Threonine POLO  Serine/Threonine POLO  Serine/Threonine POLO  Serine/Threonine POLO  Serine/Threonine POLO	Serine/Threonine CaMK CaMK IIa  Serine/Threonine CaMK CaMK IIb  Serine/Threonine CaMK CaMK IIg  Serine/Threonine CaMK CaMK IId  Serine/Threonine POLO Plk  Serine/Threonine POLO Plx1  Serine/Threonine POLO SNK  Serine/Threonine POLO SNK  Serine/Threonine POLO Sak

## Figure 1D

31	Serine/Threonine	POLO	Fnk	LELCSRKSLAHIWKARHTL
32	Serine/Threonine	POLO	Plo1	LELCEHKSLMELLRKRKQL
33	Serine/Threonine	MARK/p 78	MARK1	MEYASGGEVFDYLVAHGR M
33	Serine/Threonine	MARK/p 78	MARK2	MEYASGGEVFDYLVAHGR M
34	Serine/Threonine	MARK/p 78	P78	MEYASGGKVFDYLVAHGR M
35	Serine/Threonine	CDK	CDK2	FEFLHQDLKKFMDASALTGI
36	Serine/Threonine	CDK	CDK4	FEHVDQDLRTYLDKAPPPG L
37	Serine/Threonine	CDK	CDK6	FEHVDQDLTTYLDKVPEPG V
38	Tyrosine	SRC	c-Src	TEYMSKGSLLDFLKGETGK YL
39	Tyrosine	SRC	c-Yes	TEFMSKGSLLDFLKEGDGK YL
40	Tyrosine	SRC	Fyn	TEYMNKGSLLDFLKDGEGR AL
41	Tyrosine	SRC	c-Fgr	TEFMCHGSLLDFLKNPEGQ DL

IN THE CORE, TOST TEST

## Figure 1E

<u>г.а —</u>	T <u>-</u>				`
42	Tyrosine	LYN/HC K		Lyn	TEYMAKGSLLDFLKSDEGG KV
43	Tyrosine	LYN/HC K		Hck	TEFMAKGSLLDFLKSDEGS KQ
44	Tyrosine	LCK		Lck	TEYMENGSLVDFLKTPSGIK L
45	Tyrosine	CSK		Csk	TEYMAKGSLVDYLRSRGRS VL
46	Tyrosine	CSK	_	Matk	MEHVSKGNLVNFLRTRGRA LV
47	Tyrosine	FAK		Fak	MELCTLGELRSFLQVRKYSL
48	Tyrosine	ABL		c-Abl	TEFMTYGNLLDYLRECNRQ EV
49	Tyrosine	ENDOTH ELIAL	Tie/Tek	Tie	IEYAPYGNLLDFLRKSRVLE TDPAFAREHGTASTL
50	Tyrosine	ENDOTH ELIAL	Tie/Tek	Tek	IEYAPHGNLLDFLRKSRVLE TDPAFAIANSTASTL
51	Tyrosine	ENDOTH ELIAL	FGFR	Flg	VEYASKGNLREYLQARRPP GLEYCYNPSHNPEEQL
52	Tyrosine	ENDOTH ELIAL	FGFR	Bek	VEYASKGNLREYLRARRPP GMEYSYDINRVPEEQM
53	Tyrosine	ENDOTH ELIAL	FGFR	FGFR-3	VEYAAKGNLREFLRARRPP GLDYSFDTCKPPEEQL

COURT NOW, LISTED LEWIS THAT ALL SECOND THEFT AFFECT AFFEC

# Figure 1F

54	Tyrosine	ENDOTH	ECED	Inorp 4	I ma
	Tyrosine	ELIAL	rGrK	FGFR-4	VECAAKGNLREFLRARRPP GPDLSPDGPRSSEGPL
55	Tyrosine	ENDOTH ELIAL	PDGFR	PDGFR-a	TEYCFYGDLVNYLHKNRDS FLSHHPEKPKKELDIFGLNP A
56	Tyrosine	ENDOTH ELIAL	PDGFR	PDGFR-b	TEYCRYGDLVDYLHRNKHT FLQHHSDKRRPPSAELYSNA L
57	Tyrosine	ENDOTH ELIAL	Flt/Flk	Flt1	VEYCKYGNLSNYLKSKRDL FFLNKDAALHMEPKKEKME PG
58	Tyrosine	ENDOTH ELIAL	Flt/Flk	Flt4	VEFCKYGNLSNFLRAKRDA FSPCAEKSPEQRGRFRAMV EL
59	Tyrosine	ENDOTH ELIAL	Flt/Flk	Flk1	VEFSKFGNLSTYLRGKRNEF VPYKSKGARFRQGKDYVGE L
60	Tyrosine	HGFR		c-Met	LPYMKHGDLRNFIRNETHN P
61	Tyrosine	HGFR		c-Sea	LPYMRHGDLRHFIRAQERSP
62	Tyrosine	HGFR		Ron	LPYMCHGDLLQFIRSPQRNP
63	Tyrosine	EGFR		EGFR	TQLMPFGCLLDYVREHKDN I
64	Tyrosine	EGFR		ErbB2	TQLMPYGCLLDHVRENRGR L
65	Tyrosine	EGFR		ErbB3	TQYLPLGSLLDHVRQHRGA L

How the first cases, there are no most refer than the cases, cases passed from the first first than the first firs

## Figure 1G

66	Tyrosine	EGFR	ErbB4	TQLMPHGCLLEYVHEHKDN
				I
67	Tyrosine	RET	Ret	VEYAKYGSLRGFLRESRKV GPGYLGSGGSRNSSSLDHPD ERAL
68	Tyrosine	TRK- NGFR	Trk - NGFR	FEYMRHGDLNRFLRSHGPD AKLLAGGEDVAPGPL
69	Tyrosine	TRK- NGFR	TrkB	FEYMKHGDLNKFLRAHGPD AVLMAEGNPPTEL
70	Tyrosine	TRK- NGFR	TrkC	FEYMKHGDLNKFLRAHGPD AMILVDGQPRQAKGEL
71	Tyrosine	SYK/ZA P70	Syk	MEMAELGPLNKYLQQNRH V
72	Tyrosine	SYK/ZA P70	Zap70	MEMAGGGPLHKFLVGKRE EI
73	Tyrosine	TYK/JA K	Jak1	MEFLPSGSLKEYLPKNKNKI
74	Tyrosine	TYK/JA K	Jak2	MEYLPYGSLRDYLQKHKER I
75	Tyrosine	TYK/JA K	Jak3	MEYLPSGCLRDFLQRHRAR L
76	Tyrosine	TYK/JA K	Tyk2	MEYVPLGSLRDYLPRHSI
77	Serine/Threonine	IAK	Iak1	LEYAPLGTVYRELQKLSKF

the property of the property o

## Figure 1H

78	Serine/Threonine	CHK		Chk1	LEYCSGGELFDRIEPDIGM
79	Serine/Threonine	IKK		IKK-1	MEYCSGGDLRKLLNKPEN CGL
80	Serine/Threonine	IKK		IKK-2	MEYCQGGDLRKYLNQFEN CCGL
81	Serine/Threonine	DAPK		DAPK	LELVAGGELFDFLAEKESL
82	Tyrosine	IRK		IRK	MELMAHGDLKSYLRSLRP AENNPGRPPPTL
83	Serine/Threonine	Activin/T GFbR	TGFbR	TGFbRII	TAFHAKGNLQEYLTRHVI
84	Serine/Threonine	Activin/T GFbR	ACTR	ACTRIIA	TAFHEKGSLSDFLKANVV
85	Serine/Threonine	Activin/T GFbR	ACTR	ACTRIIB	TAFHDKGSLTDYLKGNII
86	Serine/Threonine	Activin/T GFbR	ALK	ALK1	THYHEHGSLYDFLQRQTL
87	Serine/Threonine	Activin/T GFbR	ALK	ALK2	THYHEMGSLYDYLQLTTL
88	Serine/Threonine	Activin/T GFbR	ALK	ALK3	TDYHENGSLYDFLKCATL
89	Serine/Threonine	Activin/T GFbR	ALK	ALK4	SDYHEHGSLFDYLNRYTV

# Figure 1I

	89	Serine/Threonine	Activin/T GFbR	ALK	ALK5	SDYHEHGSLFDYLNRYTV
ŀ	90	Serine/Threonine	Activin/T GFbR	ALK	ALK6	TDYHENGSLYDYLKSTTL
	91	Tyrosine	DDR		DDR1	TDYMENGDLNQFLSAHQL
- I	92	Tyrosine	DDR		DDR2	TEYMENGDLNQFLSRHEP
H H	93	Serine/Threonine	ILK		ILK	THWMPYGSLYNVLHEGTNF VV
The Mark Mark	94	Tyrosine	MAPK		JNK	MELMDANLCQVIQMEL

#### Figure 2A

```
Protein Kinase
c-Raf
        TQWCEGSSLYKHLHIETKF
Araf
        SNFSDATTIFH
                           I
                               VDSRW
Braf
           Y
               *
                     MWR
                               M *
                           M
                                     Y
                     V
                            V
                               L
       MEYVPGGEMFSHLRRIGRF
 cAPKa
        I Q F L N A A D L M F R I Q H V R K W L D W A T * I W Y Q M S Q E H V Y
cAPKb
 cAPKg
        V N
             I S
                     VYWKVKDLKI
             M Q
                       ITN
                             NKKAL
             G
                       L
                             TSS
                                    M
                       V
                               N C
                               E M
                               TD
R
                                 T
PKCa
        MEYVNGGDLMFHIQQVGKF
PKCb
        IDFLTAAEIIYQLNDLRRW
PKCg
        L * W I Q
                    * MLWNM
                               RKH
                                      Y
             M S
 PKCd
                     V V
                            V
                               KSK
PKCe
                               SCA
PKCet
                               NI
PKCth
                               E M
                               TR
                                 T
H
 Akt1/Raca MEYANGGELFFHLSRERVF
 Akt2/Racb I Q F V Q A A D I W W
                           ITHDKIW
        LDWI
                    * M Y Y
 DmRAC
                            M
                               K *
                                    LY
        V N
                            V
             L
                     V
                                    M
             M
             G
 GSK3a
        LEYVPETVYRVARHYTKAKOII
                DSIHKIIKOFSRTNLTL
 GSK3b
        IDFI
        M * W L
                *
                             N W A
                    LF
                        L V
 Sgg/zw3
                                    LRNRM
 ASK-a
             M
                   MW
                        M L
                                 N
                                    SQILV
 ASK-g
                          M
                                 Q
G
                                    Ι
                                       MM
                          G
                                    M
                                        VV
                                         S
                                    V
                                         K
                                    G
 CK IIa
        FEHVNNTDFKQLYQTL
 CK IIa'
        WDYIQQSEWRNIFNII
        Y * F L
                    * Y
                          MW
                               S M
                          V
           WM
                               M V
                               V
                               \mathbf{L}
```

#### Figure 2B

```
bARK1
       LDLMNGGDLHYHLSQHGVFNPGF
 bARK2
       MTIIQAAEIRF
                         IYNVDEDGFAW
 GRK1
       IEML
                         MTHLENPQW
                  * M K W
 GRK4
       VSVV
                   V
                         VF
                             MAQAAY
 GRK5
                          W
                              I * I W
 GRK6
                                LY
                                M E
                                DG
       MQLVSGGELFDRIVEKGGY
 CaMK I
 CaMK IIa FDIITAADIWEDLIAREYF
 CaMK IIb WNML
                  * M Y * K M L D
                               DFW
 CaMK IIg
       YEVM
                   V
                        EVMG
                               A W
 CaMK IId
       I *
                               * A
       L
       V
17
- Plk
       LELCRRRSLLELHKRRKALF
Plx1
       IDISKKGEMMAILRA
                               HSVW
Polo
       M * Y
             SNKDINRYW
                               VVIY
                            N
- SNK
       V
          M
             PHATVAHMI
                            K
                               RKP
CDC5
          V
             ΗQ
                     IDVM
                            Q
                               ITM
          F

    Sak

             E
                     VKFV
                               L Q
M T
Prk
          W
             T
                     QGWF
Fnk
             D
                     G *
                         Y
                                 Ι
Plo1
                                L
M
                                M
R
N
                                G
 P78
       MEYASGGEVFDYLVAHGRM
 MARK1
       LDFGTAAKIWEFIIG AKI
 MARK2
       I * W
                  DLY*WML
                                  L
       V
 Par1
                  R M
                         VM
                                  V
 CDK2
       FEFLHQDLKKFMDAVALTGI
 CDK4
       WDH VDNE I RTYLEKSPPPAL
 CDK6
       Y * W I E
                * MTRWI * RAGES
                                   V
                  V S S
                        V
          Y M *
                           G I
                               Ι
                                   M
                            L
                               M
                               V
                            M
                            T
                               D
```

#### Figure 2C

```
c-Src
        TEFMSKGSLLDFLKGETGKYL
 c-Yes
        MDYVNHANIVNYIREGSRRAV
 Fyn
         * HICN
                    TMIEWM
                               DPDKQDQ
           WLAR
 c-Fgr
        Ι
                    Q V M Q
                            V
                               NDEAGKI
 Lyn
        L
               E Q
                               SRG
                                      SVM
        V
 Hck
               T
                               TKA
                                      ILN
               Q
D
 Lck
                               Q A *
                                      A F
 Csk
                               À *
                                      N W
               G
 Matk
                                      ΤE
                                      LR
                                      M I
                                      VM
                                       G
Fak
        MELCTLGELRSFLQVRKYSL
        IDISSIADIKTWINIKRFTI
        L * M
                    * M
                M
                          YM
                               L
                                    W M
H
           V
                V
                     V
                            V
                               M
                                        V
H
c-Abl
        TEFMTYGNLLDYLRECNRQEV
fat.
        SDWISFAQIIEFIKDSQKNDI
H
           ΥL
                W
                     MM * WM
                                        * L
年:
             V
                     VV
                            V
                                         M
Eggi
Tie
        IEYAPYGNLLDFLRKSRVLETDPAFAREHGT
        TDFCRHADIVNYIHRNKHTFLQHHSDIANSP
V*WSFF QMSTWMKSK DSDFSNKPEKRRPE
Tek
        V * W S F F
PDGFR-b
             T K W
PDGFR-a
        \mathbf{L}
                    EVIE
                            Ų
                               A T
                                    NAWSLCRDKAPKKR
                       \begin{array}{cc} M \ Q \\ T \ S \end{array}
                                    IEYVPYGERSLEMS
Flt1
        M
             G W
                               G Q
 Flt4
        S
               Y
                               TR
                                    LI*IEQ
                                                WGGDQQD
 Flk1
                                         MNF
                                                Y * L K D F K
                                    MM
                                         WTW
                                    EV
                                                   M I * T *
                                                T
                                                   V M
                                    Q D
                                         YIS
                                                        R
                                                   Т
                                      G
                                                     V
                                                        Ι
                                           M
                                           V
                                                     G
                                                        L
                                                        V
                                                        N
W
Y
                                                        A
        STLYSNAL
 Tie
 Tek
        AEFGLEPA
 PDGFR-b DI EKMVEG
 PDGFR-a KKRAVGDI
 Flt1
        RFDFTQGM
        GSIWID*V
 Flt4
 Flk1
        TDMR
                 I
        ELV
                 L
         MW
                M
          V Y
                 A
          R K
          w *
          Y
```

Figure 2D

```
V E Y A S K G N L R E Y L Q A R R P P G L E Y C Y N P S H N P
 Flg
 Bek
         IDCGARAQIKDFIRGKK
                                          AMDLSFDINRVS
 FGFR-3
        L * F
                          * WMN
                T
                                            P * F T P Q T C K P
I W W E G P S
                       M
 FGFR-4
                                                   WÈGP
        M
            W
                G
                       V
                              VK
            S
                                            V
                                                Ι
                                                     * L T
                                                            Q
I
                                                      M O
                                               M
                                                V
                                                       V
                                                            L
                                                       S
                                                            M
                                                       Α
                                                            T
 Flg
        EQL
        GP M
 Bek
 FGFR-3
        DNI
 FGFR-4
            V
        Α
         LPYMKHGDLRNFIRNETHNP
_c-Met
c-Sea
Ron
         Ι
            FIR
                   AEILHWLKAQERS
            WLC
                     * MKQYM
        M
                                 SPQKQ
              V S
                       VI
                                 QDS
TND
                              V
eri
Esi
į,
                        M
                         V
                                 G * N
gal.
341
EGFR
         TQLMPFGCLLDYVREHKDNI
ErbB2
         SNYL
                  YASIIEHIHQNRGRL
ErbB3
                     TMM*FLKDQ
VV WM N
            ΙΙ
                  L
                                       EAM
ErbB4
            M V
                  Η
                       VV
                            WM
                                 N
                                       A Q V
            V
                  W
                                       *
                                        Ŕ
13
            F
                  Ι
                                         G
H
            W
                 \mathbf{M}
                  V
         V E Y A K Y G S L R G F L R E S R K V G P G Y L G S G G S R N
 Ret
         I D F G R F A T I K A W I K D T K R I A
                                              AFIATAATKO
         L * W
                 W
                       M
                            YM
                                         L
                                                WM
                              V
                                        M
                                                 V
 Ret
        SSLDHPDERAL
        TTIE
                   EDKGI
            M *
                   *
                          M
```

V

V

Figure 2E

Syk Zap70	EMAELGPLNKYLQQNRHVI DIGGGA IHRFIVGKKEEL *L DI MQ WMNNQ DIM V AM V VIAR *LV *V L M A M D
Jak1 Jak2 Jak3 Tyk2	IEFLPSGSLKEYLPKNKNKI         DYI YACIRDFIQRHRERL         *WM T TM *WMN QSA M         V F V V TQ V         B         L       G         I       I         L       L         L       L         L       L
Tak1	EYAPLGTVYRELQKLSKF DFG IASIFKDINRITRW I*W M LW *M M Y V M V V
Chk1	EYCSGGELFDRIEPDIGM DFSTAADIWEKLD ELAI I*W *MY* M* *M L V V V
IKK-1	IEYCSGGDLRKLLNKPENCCGL DFSQAAEIKRYIQQFDQSSAI *W T *M IM RW* M N V MV NY V V F W
DAPK	ELVAGGELFDFLAEKESL DIIGAADIWEWIGDRDTI I*ML *MY*YM * * M VM V V V
IRK	IELMAHGDLKSYLRSLRPEAENNPGRPPPTL DIIG AEIRTFIKTIK DGDQQ AK SI *ML *M WM M * * VV V V
TGFbRII ACTRIIA ACTRIIB	AFHAKGNLQEYLTRHVI GW ERASISDFIKANIV Y D QMT*WMSGQLL G TV VRK MM

#### Figure 2F

```
ALK1
      THYHEHGSLYDFLQRQTL
ALK2
      SDF
            DMATIFEYIKLTSV
                  MW * WMNCA
ALK3
        E W
             * N
                                Ι
ALK4
              Ι
                   V
                         VRSY
                                M
ALK5
              L
                            KN
ALK6
              V
                            I S
              Q
                           M F
                            VW
                            TG
```

```
Trk-NGFR F E Y M R H G D L N R F L R S H G P D A K L L A G G E D V A P
       WDFIK AEIQKWIKA A EGVIMVEANPPTE
TrkC
       Y * W L
                   * M
                         YM
                                       T
                                                QERQA
            V
                    V
                          V
                              G
                                                D * I S D
                                           M *
                                       Ι
                                                 *
                                                    LNG
                                       L
                                            G
                                                    M G *
K
```

Trk-NGFR P L L
TrkB G E I
TrkC A I M
W V
V
D
\*\*

E.J. DDR1 TDYMENGDLNQFLSAHQL DDR2 SEFIDQAEIQNWITR  $\mathbf{E} \mathbf{P}$ \* WL \* \* M YMK NΙ V V V G D V \* M

ILK T H W M P Y G S L Y N V L H E G T N F V V S F I F A T I F Q I I D A S Q W I I Y L W MW L M \* Y L L M V M V M M

## Figure 3A

	Peptide <u>Akt1/Raca</u>	N-terminal																							С	-terminal
	95 K014D001	Myristyl -	G	M	Ε	Y	Α	N	G	G	Ε	L	F	F	H	L	S	R	E	R	v	F				- NH2
	ALK1																									
	96 K048D101	Myristyl -	G	Т	Н	Y	H	E	H	G	S	L	Y	D	F	L	Q	R	Q	T	L					- NH2
	<u>Braf</u>																									
	97 K003D001	Acetyl -	K	K	K	K	K	K	G	G	S	s	L	Y	H	Н	L	н	I	I	Ε	Т	K	F		- NH2
	98 K003D101	Myristyl -	G	T	Q	W	S	E	G	S	S	L	Y	Н	Н	L	Н	I	I	E	Т	K	F			- NH2
	c-Abl																									
	99 K061D101	Myristyl -	G	T	E	F	M	T	Y	G	N	L	L	D	Y	L	R	E	С	N	R	Q	E	v		- NH2
f.	<u>c-Met</u>																									
	100 K073D101	Myristyl -	G	L	P	Y	M	K	H	G	D	L	R	N	F	Ι	R	N	E	Т	Η	N	P			- NH2
	c-Raf																									
	101 K001D101	Myristyl -	G	T	Q	W	S	E	G	S	S	L	Y	K	н	L	Н	v	Q	E	T	K	F			- NH2
	102 K001D001	Acetyl -	s	S	L	Y	K	H	L	H	V	Q	E!	T	K	F										- NH2
9 <b>4.</b> )	c-Sea																									
	103 K074D101	Myristyl -	G	L	P	Y	M	R	H	G	D	L	R	H	F	I	R	A	Q	E	R	S	P	-		- NH2
	c-Src																									
	104 K051D101	Myristyl -	G	T	E	Y	M	S	K	G	S	L	L	D	F	L	K	G	E	T	G	K	Y	. T		- NH2
	105 K051D001	Acetyl -	G	S	L	L	D!	L	K	G	E!	Т	G	K	F	L										- NH2
,	CDK2																									
	106 K049D101	Myristyl -	G	F	E	F	L	H	Q	D	L	K	K	F	M	D	A	S	A	L	T	G	I			- NH2
	107 K049D001	Acetyl -	D	L	K	K	F	M	D!	A	S	Α	L	T	G	M	[									- NH2
	CDK4																									
	108 K050D001	Acetyl -	D	! L	R	T	Y	L	D!	K	Α	P	P	P	G	L										- NH2
	109 K050D101	Myristyl -	G	F	E	H	v	D	Q	D	L	R	T	Y	L	D	K	. <b>A</b>	P	P	P	G	L	•		- NH2
	CDK6																									
	110 K089D101	Myristyl -	G	F	E	H	v	D	Q	D	L	T	T	Y	L	D	K	v	P	E	P	G	V	,		- NH2
	Chk1																									
	111 K088D102	Myristyl -	G	E	Y	S	S	G	G	E	L	F	D	R	I	E	P	D	I	G	M	[				- NH2
	112 K088D101	Myristyl -	G	E	Y	A	S	G	G	E	L	F	D	R	I	E	P	D	I	G	M	I				- NH2
	CK IIa																									
	113 K022D001	Acetyl -	K	K	K	K	K	G	G	N	N	T	D	F	K	Q	L	Y	Q	T	L					- NH2
	114 K022D101	Myristyl -	G	F	E	H	V	N	N	T	D	F	K	Q	L	Y	Q	Т	L							- NH2

#### Figure 3B

	<u>Csk</u>																								
	115 K058D101	Myristyl -	G	T	E	Y	M	Α	K	G	S	L	v	D	Y	L	R	s	R	G	R	S	v	L	- NH2
	116 K058D001	Acetyl -	G	s	L	v	D!	L	R	S	R	G	R	s	v	L									- NH2
	<u>Fak</u>																								
	117 K060D101	Myristyl -	G	M	E	L	S	T	L	G	E	L	R	S	F	L	Q	v	R	K	Y	s	L		- NH2
	FGFR-3																								
	118 K071D101	Myristyl -	G	G	N	L	R	E	F	L	R	Α	R	R	P	P	G	L	E						- NH2
	119 K071D001	Acetyl -	G	N	L	R	E!	F	L	R	Α	R	R	P	P	G	L	E!							- NH2
	120 K071D102	Myristyl -	G	V	E	Y	A	Α	K	G	N	L	R	E	F	L	R	Α	R	R	P	P	G	LE	- NH2
ε.,	121 K071D901	Stearyl -	G	S	F	D	T	S	K	P	P	E	E	Q	L										- NH2
	122 K068D101	Myristyl -	G	V	E	F	S	K	F	G	N	L	S	N	F	L	R	A	K	R	N	L	F	V P	- NH2
	123 K068D101	Myristyl -	G	G	N	L	S	N	F	L	R	A	K	R	N	L	F	V	P						- NH2
137	124 K068D001	Acetyl -	G	N	L	S	N	F	L	R	A	K	R	N	L	F	V	P							- NH2
11	125 K068D901	Stearyl -	G	R	F	R	Q	G	K	D	Y	V	G	E	L										- NH2
.≓ <u>;</u>	GSK3b																							•	
	126 K018D003	Acetyl -	K	K	K	K	K	K	G	G	G	V	A	R	Н	Y	S	R	A	K	Q	T	L	P	- NH2
	127 K018D002	Acetyl -	V	A	R	H	Y	S	R	A	K	Q	T	L	P										- NH2
	128 K018D101	Myristyl -	G	D	Y	V	P	E	T	V	Y	R	v	A	R	Н	Y	S	R	Α	K	Q	Т	L .	- NH2
7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	129 K018D001	Acetyl -	R	V	A	R	H	Y	S	R	A	K	Q	T											- NH2
	<u>Hck</u>																								
	130 K056D101	Myristyl -	G	T	E	F	M	A	K	G	S	L	L	D	F	L	K	S	D	E	G	S	K	Q	- NH2
	<u>Iak1</u>										•														
	131 K087D101	Myristyl -	G	L	E	Y	A	P	L	G	T	V	Y	R	E	L	Q	K	L	S	K	F			- NH2
	<u>IKK-1</u>																								
	132 K090D101	Myristyl -	G	M	Έ	Y	S	S	G	G	D	L	R	K	L	L	N	K	P	E	N	S	S	GL	- NH2
	<u>IKK-2</u>																								
	133 K091D101	Myristyl -	G	M	Ε	Y	s	Q	G	G	D	L	R	K	Y	L	N	ſ Q	F	E	N	S	S	GL	- NH2
	<u>ILK</u>																								
	134 K107D101	Myristyl -	G	T	H	W	M	P	Y	G	S	L	Y	N	V	L	H	Έ	C	T	N	F	V	V	- NH2
	135 K107D901	Stearyl -	G	Y	N	V	L	H	E	G	Т	N	F	V	V										- NH2

#### Figure 3C

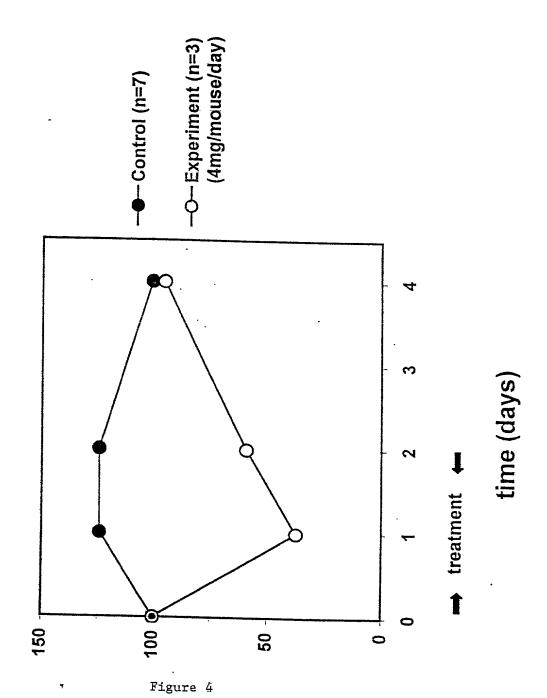
		<u>IRK</u>																										
	136	K094D101	Myristyl -	G	M	E	L	M	Α	н	G	D	L	K	s	Y	L	R	S	L	R	P					- NH	[2
	137	K094D001	Acetyl -																								- NH	
	138	K094D102	Myristyl -	G	L	K	s	Y	L	R	s	L	R	P	E	A											- NH	
	139	K094D103	Myristyl -	G	Α	Ε	N	N	P	G	R	P	P	P	Т	L											- NH	<u>1</u> 2
	140	K094D104	Myristyl -	G	L	R	P	E	A	E	N	N	P	G	R	P	P	P	T	L							- NH	<u>1</u> 2
		Jak1																										
	141	K084D101	Myristyl -	G	M	E	F	L	P	S	G	S	L	K	E	Y	L	P	K	N	K	N	K	ΞI		- NE	12	
	142	K084D102	Myristyl -	G	L	K	E	Y	L	P	K	N	K	N	K	I											- NE	<u>1</u> 2
- A.		Jak2																,										
	143	K085D102	Myristyl -	G	L	R	D	Y	L	Q	K	Н	K	E	R	I											- NE	<u>12</u>
		K085D105	Stearyl -	G	L	R	D	Y	L	Q	K	Н	K	E													- NE	12
		Jak3																										
	145	K086D101	Myristyl -	G	M	E	Y	L	P	s	G	S	L	R	D	F	L	Q	R	Н	R	Α	L				- NE	12
	146	K086D102	Myristyl -	G	M	E	Y	L	P	S	G	S	L	R	D	F	L	Q	R	Н	R	Α	R	L			- NE	<u>12</u>
	147	K086D103	Myristyl -	G	L	R	D	F	L	Q	R	H	R	A	R	L											- NE	<u>1</u> 2
		Lck																										
	148	K057D001	Acetyl -	G	S	L	V	D!	L	K	T	P	S	G	I	K	L									- NE	<u>12</u>	
	149	K057D101	Myristyl -	G	T	E	Y	M	E	N	G	S	L	V	D	F	L	K	T	P	S	G	I	K	L		- NE	12
FL		<u>Lyn</u>																										
	150	K055D101	Myristyl -	G	T	Ε	Y	M	Α	K	G	S	L	L	D	F	L	K	S	D	E	G	G	K	V		- NE	<u>12</u>
		MARK1																										
	151	K045D101	Myristyl -	G	M	E	Y	A	S	G	G	E	V	F	D	Y	L	V	A	H	G	R	M	[			- NI	<del>1</del> 2
		PDGFR-b																										
	152	K064D001	Acetyl -	G	D!	L	V	D!	Y	L	H	R	N	K	H	T	F	L									- NI	<del>1</del> 2
	153	K064D101	Myristyl -	G	T	Ė	Y	S	R	Y	G	D	L	V	D	Y	L	H	R	N	K	H	T	F	L		- NI	<del>1</del> 2
		<u>PKCb</u>																										
		K008D101	Myristyl -															-	-								- NI	<del>1</del> 2
	155	K008D001	Acetyl -	K	K	K	K	K	K	G	G	D	L	M	Y	H	I	Q	Q	V	G	R	F				- NI	12
	,	<u>Plk</u>																										
		K035D001	Acetyl -																								- NI	<del>1</del> 2
	157	K035D101	Myristyl -	G	R	S	L	L	E!	L	H	K	R	R	K	A											- NI	<del>1</del> 2

#### Figure 3D

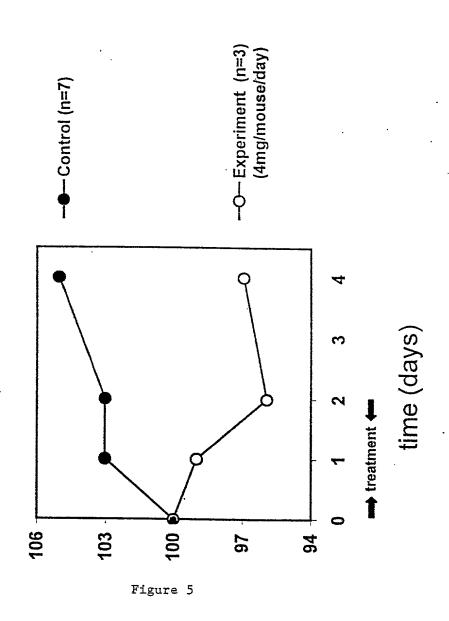
158	K035D102	Myristyl -	G	L	Ε	L	S	R	R	R	S	L	L	E	L	Н	K	R	R	K	Α	L					- NH2
]	Ret																										
159	K080D101	Myristyl -	G	v	Е	Y	A	K	Y	G	s	L	R	G	F	L	R	E	s	R	K	v	G	P			- NH2
160	K080D001	Acetyl -	G	S	L	R	G	F	L	R	E!	s	R	K	v	G	P										- NH2
]	Ron																										
161	K075D101	Myristyl -	G	L	P	Y	M	C	Н	G	D	L	L	Q	F	I	R	S	P	Q	R	N	P				- NH2
1	<u>SNK</u>																										
162	K038D101	Myristyl -	G	L	Ε	Y	s	S	R	R	S	M	A	Н	I	L	K	A	R	K	v	L					- NH2
<u> </u>	<u>Syk</u>																										
163	K082D101	Myristyl -	G	M	E	M	Α	E	L	G	P	L	N	K	Y	L	Q	Q	N	R	Н	v					- NH2
	TGFbRII																										
164	K093D101	Myristyl -	G	T	A	F	н	Α	K	G	N	L	Q	E	Y	L	Т	R	Н	v	I						- NH2
	<u>TrkB</u>																										
165	K102D101	Myristyl -	G	F	E	Y	M	K	Н	G	D	L	N	K	F	L	R	Α	Н	G	P	D	Α	V I	M	A	- NH2
166	K102D106	Myristyl -	G	L	R	A	H	G	P	D	Α	v	L	M	A												- NH2
167	K102D107	Myristyl -	G	L	R	Α	H	G	P	D	Α	V	L														- NH2
168	K102D108	Myristyl -	G	L	N	F	K	L	R	A	H	G	P	D	Α												- NH2
169	K102D109	Myristyl -	G	F	K	L	R	A	H	G	P	D	Α	v	L												- NH2
	<u>Zap70</u>																										
170	K083D101	Myristyl -	G	M	E	M	A	G	G	G	P	L	Н	K	F	Ĺ	v	G	K	R	E	E	I				- NH2

K:\RWAGNER\CMCC\679\FIGURES

% change in daily food consumption (g/mouse/d)



% change in body weight



# MODULATION OF TH1/TH2 DIFFERENTIATION BY A JAK-DERIVED PEPTIDE

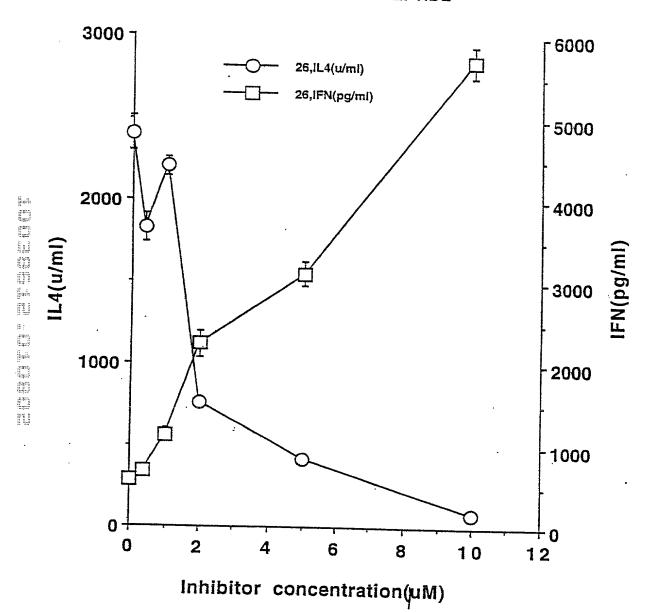


Figure 6

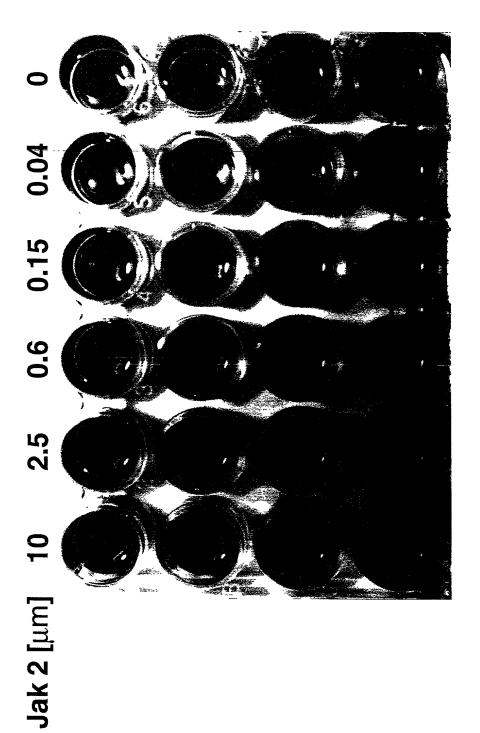


Fig. 7